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BOSTON UNIVERSITY
SCHOOL OF EDUCATION

AN INTRODUCTORY UNIT OF TABULATION
FOR FIRST-YEAR TYPEWRITING

Service Paper

Submitted by

Ruth I. Larson

(B.S., University of South Dakota, 1935)

In partial fulfillment of requirements for the
degree of Master of Education

1949

✓

First Reader: John L. Rowe

Second Reader: Helen Kelly

Gist of 9th March
Scholarship application
Dec 14, 1918.
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CHAPTER I

INTRODUCTION

The Problem.— Although tabulation constitutes a part of the basic training of typists, both for business and personal use, there is little agreement in textbooks as to what should be included in an introductory unit of tabulation for first-year typewriting (secondary level) the approach that should be made, or the methods to be used in the presentation of the subject matter. Supplementary instructional material deals mainly with advanced or statistical typing.

"Tabulation" is the arrangement of data or information in columns or table form. Textbooks generally include under this definition, the following:

"The arrangement" is (1) the plan or placement of the columns or table on the sheet; (2) the organization or reduction of arranged material into columns or table form; and (3) the typing of such arranged material.

"Columns" may range from one- to multi-columnar. The "table form" may consist of one or more main headings, one or more columnar headings, a tabulation proper (columns), and occasionally footnotes.

The "data or information" may range from arranged, or that already drafted into columnar or table form, to unarranged, or that to be set up into columnar or table form. Such data may have been drafted in long-hand or typewritten, on blank sheets of paper, printed or mimeographed form, or accountants' working paper.

A tabulation is classified as to type, as follows: ruled (ruling done by hand), printed form, or unruled.

The skills and knowledges most commonly related to tabulation are included in the following list:

- a Horizontal centering using different sized sheets of paper and standardized card sizes
- b Vertical centering using different sizes of paper and cards
- c Numbers and special characters
- d Clearing and setting of tab stops
- e Parts of the machine used in tabulation and their care
- f Use of fixed and variable centering points and pivot points
- g Variations between actual centering and optical centering
- h Rapid carriage return followed by the use of the tabulator key for several tab settings
- i Correct fingering and use of the 5-key and 10-key decimal tabulator devices
- j Understanding and reading the different typing scales-- front scale, paper-edge-guide scale, line scales¹

Consideration of the Subject Matter of Tabulation.-- What should be taught in an introductory unit of tabulation? The delimitation depends upon how the skill is to be applied both for business and personal use.

1. The University of the State of New York, The State Education Department, Division of Vocational Education, Bureau of Business Education, Albany, 1945, p. 1. (Its Bulletin No. 55-A, September 1, 1945)

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
JANUARY 1961

TO THE HONORABLE CHAIRMAN OF THE BOARD OF TRUSTEES
OF THE UNIVERSITY OF CHICAGO

SIR:

I have the honor to acknowledge the receipt of your letter of the 10th inst. and in reply to inform you that the same has been forwarded to the appropriate authorities for their consideration.

I am, Sir, very respectfully,
Yours obedient servant,
[Signature]

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
CHICAGO, ILLINOIS

In an attempt to answer this question, the writer was aware of the great influence the use of printed forms has had upon tabulation within the past decade.

Through office experience, the writer learned that data to be tabulated is almost always presented to the typist on a printed or ruled form--whether the data is to be typed on a printed form or a blank sheet. The typist is expected to know how to center the data affectively and how to type it accurately and speedily. A knowledge of the principles of tabulation is essential. Lloyd¹ has substantiated these facts, as follows:

You'll find that over 65 per cent of the typing in an office is repetitive. The same old letters, the same reports, the same inquiries, the same kind of tabulations are typed again and again. Of all jobs that become standardized in an office, tabulations are the most likely to be nearly identical in form, month in and month out. Businessmen base their decisions on records; and week after week, month after month, quarter after quarter, the same type of record is prepared. Office files bulge with copies of old periodic, tabulated reports!

So the chances are ten to one that complicated tables, which confound you the first time you see them, are exactly like their ancestors gathering dust in some file drawer.

One glance at a tabulation ought to tell you whether or not it is related to those in storage; the table will be labeled as a report for a specified period (example: "Report of Sales for March, 1947") or it will be identified with a date of effectiveness (like: "Change of Prices, Effective March 15, 1947").

When you see such clues, you can be almost certain that the office files contain predecessors, and therefore that someone else has already sweated out the details of arrangement.

1. Lloyd, Alan C., "Brace Your Headings with Boxes," The Gregg Writer, New York, Vol. XLIX, March, 1947, p. 342.

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In such a case, all you need to do is get the file copy, insert it into your machine, set margin and tabulator stops as indicated by the arrangement on the file copy, and then type your current issue of the table in the same pattern as that shown on the file copy. True, you may have to make some minor adjustments--take in or let out a few seams, so to speak--but fundamentally there's no pain, no strain. You can have the job completed within a few minutes.¹

Blanchard² made an investigation through a number of typing teachers asking them to inquire of business firms in their community the type of tabulation material used. The reports represented four states, a good cross section of business, and some 400 typists. It was revealed that unarranged tabulations were not used to any appreciable extent in an office. Tabulations are generally given to the typist in arranged form, pencilled or typewritten on ruled forms (printed, mimeographed, or dittoed, or sometimes accountants' working paper). The spacing and final arrangements of the material were left to the typist.

In a recent survey of statistical typewriting in the Boston area, Butler³ found that "the material is given to the typist more frequently in longhand, columnar arrangement or on a printed work sheet with pencil figures," rather than in unarranged form. Her report further revealed that, "Ruling is kept at a minimum by the use of printed forms."

1. Ibid., p. 342.

2. Blanchard, Clyde I., "Unarranged Tabulations are Out," The Business Education World, The Gregg Publishing Company, New York, Vol. XXVII, December, 1946, p. 202.

3. Butler, Elizabeth V., "Statistical Typewriting--A New Job Classification," United Business Education Association Forum, The Association, Washington, D.C., Vol. II, May, 1948, p. 11.

From the foregoing findings, the writer believes that the influence the use of the printed form has had on tabulation is the emphasis that it has placed upon the routine nature of the work. An introductory unit in tabulation, therefore, ought to establish for the typist the fundamental skills and knowledges pertinent to such a routine. These are as follows: (1) The ability to use the typewriter to set up columns or a table, and (2) a knowledge of the parts of a table and the principles governing each.

In view of the ineffectiveness and unwisdom of following any one textbook or author in teaching tabulation, the problem of this study has been to apply the basic principles of unit organization to the unit organization and classroom presentation of the topical area, "An Introductory Unit of Tabulation for First-Year Typewriting."

CHAPTER II

DEVELOPMENT OF THE METHODS USED

Tabulation problems vary in difficulty due largely to the fact that tabulation involves the integration of many separate skills and new understandings of tabular form. Pupils differ widely in their ability to learn to plan and execute tabulation problems for the same reason, plus the realization that individual pupils differ greatly in capacity to learn.

This study is concerned, therefore with the best method of handling each.

Tabulation problems have been set up in such a manner that the integration of the separate skills and knowledges are developed by a series of steps progressing from the simple to the complex, as follows:

Topic #1.-- Vertical and Horizontal Placement of Main Headings.

Topic #2.-- Emphasis and Display of Headings.

Topic #3.-- Operating the (Jump-Stop) Tabulator System.

Topic #4.-- Vertical and Horizontal Centering of Two Columns.

Topic #5.-- Vertical and Horizontal Centering of Three Columns.

Topic #6.-- Centering the Columnar Headings.

Topic #7.-- Vertical and Horizontal Placement of Table.

The daily procedure used is believed to be adaptable to the learning capacities of individual pupils. The emphasis is upon individual improvement, as follows:

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1. Daily warm-up exercises provide for improvement of finger dexterity based upon lines per minute.
2. Daily location and security drills provide for improvement of stroking power based upon accurate lines per minute.
3. Class consideration pre-tests certain knowledges and provides for improved understandings.
4. Class activity pre-tests certain allied skills, separate and integrated, and provides supervised practice, both group and individual.
5. Optional activity provides for the individual differences in capacity to learn by a range of exercises or problems to be completed, both required and optional.

Record of Daily Activities.-- In order to keep a daily account of the progress of the unit and to develop alertness in the pupil to check his work, it is recommended that a class activity sheet be used and posted on the bulletin board.

The activity sheet is a ruled form on which numbers representing pupils' names are typed down the left-hand column. Above the right-hand columns are typed the activities, both required and optional (Example: "Ex.*1, p. 6). Several columns should be left blank for any worthwhile activity the pupil performs in connection with tabulation, such as typing a table for one of the instructors.

Each required activity, in order of sequence, must be completed and accepted by the teacher before proceeding to the optional ones. The pupil checks the appropriate column when he has returned a job in for approval and double checks when it has been accepted by the teacher.

Activities are checked, and "graded" if time permits, by the teacher during classtime. Each activity is evaluated, as follows:

Perfect on first submittal A

Acceptable on first submittal B

(Allowance: two good erasures or
slight deviation from instructions)

Not acceptable on first submittal "X"

(Poor erasures or too many or did
not follow instructions)

Unchecked error "UE"

Corrected or retyped and accepted C or D

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PHYSICS 101

CLASSICAL MECHANICS

LECTURE 1

1.1. Kinematics

1.2. Dynamics

1.3. Energy

1.4. Angular Momentum

1.5. Oscillations

CHAPTER III

ORGANIZING THE UNIT

General Statement of the Unit.-- The typewriter is an aid, both for business and personal use, in setting up definite facts and detailed figures, compactly, simply, and clearly. An increasing portion of material recorded by such means is in the nature of columns or a table, termed tabulation. A knowledge of the general principles of typing such material arranged in columns or table form together with ability to apply, is needed by the typist.

Delimitation of the Unit.--

1. "Tabulation" is the arrangement of data or information in columns or table form. Some of the advantages gained from this form are:

- a. The information is easy to read and to understand.
- b. When the information or data are arranged in column form it is easy to see relationships, to make comparisons, and to draw conclusions.

- c. Material in tabulated form usually occupies less space than the same material occupies in unarranged form.

2. Tabulation typewriting involves the ability to use the typewriter to set up columns or a table. Columns may range from one- to multi-columnar. Type of tabulation may be ruled (ruling done by hand), printed form, or unruled. Material may range from arranged, or that already drafted into columnar or table form, to unarranged, or that to be set up into columnar or table form.

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3. A table is composed of one or more of the following parts:

a. Main headings

- (1) Main title: General title given to the subject-matter of the tabulation.
- (2) Subtitle : Secondary title which supplements the main title, or which is descriptive of a portion of the tabulation which follows.

b. Columnar headings

- (1) Compound heading : Two or more column headings grouped together under one heading.
- (2) Column heading : Title of the subject matter of an individual column.

c. Tabulation proper

- (1) Column : Content part, or tabulation proper.
- (2) Inter-column : The space between columns.
- (3) Inter-lines : The line space between typed lines.

d. Footnote : Notation added to a figure or part.

4. The pupil should acquire sufficient knowledge of the format of tabulation and have enough practice to enable him to type satisfactorily work of this nature, as follows:

a. Unruled type of tabulation with material already arranged in columnar or table form; capable of artistic placement on regular 8 $\frac{1}{2}$ - by 11-inch paper.

b. Horizontal and vertical placement of the main and columnar headings and tabulation proper.

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1963

5. The pupil should be made aware of the mechanical devices of the typewriter as an aid in setting up tabulations, thus:

- a. Paper guide: Used to determine and hold the center of sheet at 43 for pica type and 51 for Elite.
- b. Front scale: Used for horizontal centering, locating the printing point, setting both the tabulator and marginal stops.
- c. Line space : Used for vertical centering.
regulator
- d. Backspacer : Used for horizontal centering of all headings.
- e. Jump-stop : (1) Tabulator stops on the tabulator rack
tabulator system coincide with stroke reading on the front scale.
(2) Tabulator set key, used to throw in tab stops to catch the foremost figure in each column.
(3) Tabulator clear key, used to release one or all tab stops.
(4) Tabulator bar (or key), used to snap the carriage to the desired tab stop.

6. The pupil should be made aware of the overall principles underlying tabulation planning, thus:

- a. Optical centering will require the entire table to be raised from one to four spaces on the paper.
- b. Left and right margins should be approximately the same width.
- c. Bottom margin should be somewhat wider than the top and side margins.

7. The pupil should be made aware of the fundamental principles of emphasis, thus:

- a. Equal spacing between columns.
- b. Side margins wider than the intercolumn space.
- c. Headings carry the reader to important parts, as follows:
 - (1) Any heading typed in all-capitals outranks those not typed in all capitals.
 - (2) Any heading typed in spread letters is more important than those in the same sized type.
 - (3) Underscoring brings out special emphasis. A continuous line is preferred to a broken one.
 - (4) Equal emphasis should be given to equal importance.
- d. White spaces emphasize the typed spaces.

8. The pupil should be made aware of the specific principles underlying tabulation planning, thus:

- a. Center the main headings over the horizontal mid-point of the page.
- b. When there is a compound heading, center it over the column headings to which it applies.
- c. Column headings should be centered above the columns to which they apply.
- d. If any heading is too long for one line, or column, divide it into two or more parts, making the breaks come where there is a division of thought. Center each part, generally, single-spaced.

e. When listing figures in a column, keep the right side of the column even--units under units, tenths under tenths, and so forth.

f. If the dollar sign is used, align it with the longest number in each column; repeated at the top, after every break, and total figure of each column. (There is a tendency to omit the dollar sign in tables unless it actually adds to the clearness of the material.)

g. Always use commas in numbers to indicate thousands.

h. The width of the intercolumn depends upon the width of the columns as well as upon the number of columns which the tabulation is to contain. With space available, the intercolumn widths may be arbitrarily chosen, as follows:

(1) For medium width columns choose 5 or 6 spaces.

(2) For wide columns choose 7 or 8 spaces.

(3) For narrow columns choose 9 or 10 spaces.

i. The tabulation proper is single or double spaced. The interline spacing of the heading is, as follows:

(1) One interline between main headings.

(2) One interline between columnar headings.

(3) Two interlines separating main from columnar headings.

(4) One interline between columnar headings and tabulation proper.

9. The student should be made aware of the precision relative to tabulation typing, thus:

a. Figures must be typed accurately and rapidly.

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- b. Original copy must be read accurately, as follows:
 - (1) Keeping one's place by using a straight-edge ruler as a guide.
 - (2) Reading figures according to proofreading diction.
- c. Proofreading and correcting typed copy accurately.
- d. Carbon copies must be readable.

Probable Incidental Learning Products.--

- 1. An appreciation of the workmanship involved in typing tabulated reports.
- 2. An increased awareness of the prevalence of tabulated form.
- 3. Further practice and application of previous skills acquired in the study of typewriting.

The Unit Assignment Sequence

Tentative Time Allotment.-- The work in this unit is planned for a period of three weeks.

Introduction to the Unit.-- An overview of the type of work to be done in this unit can be given in one period by following the steps, below:

- 1. Before the unit is presented, the teacher should have the pupils bring in a daily newspaper. The teacher should have a supply of samples of tabulation used in the school and community. Class discussion will point out the different uses of tabulation, both for business and personal use. The teacher will guide the discussion so that it brings out the different types of tabulation illustrated in the examples--ruled, printed-form, and unruled.

2. Give out study guides. Read through daily warm-up with the class, demonstrate the technique to be used, time the class on a one-minute practice. Read through daily location and security drills with the class, demonstrate the technique to be used, time the class on three one-minute practices. Emphasize improvement. Explain that these drills are to be handed in daily.

3. Read through class consideration with the class and discuss the the questions. Give the pupils a brief explanation of the parts of "the plan" and the purpose of each. Explain that certain principles and skills are essential to tabulation. Explain that on the last day of the time allotted for the unit, an achievement test will be given.

4. Class attention to group activity. Read each direction and demonstrate how these are to be followed. Have the pupils imitate each step. (The teacher should supply further progress material according to the needs of the class. Reference: Wanous, S. J., Statistical Typing With Tabulation Problems, South-Western Publishing Company, Chicago, 1945, pp. 1-7.)

5. Explain the use of the record of daily activities (page 7). Explain that any worthwhile activity concerning tabulation will be given extra credit. Check the activity first with the teacher.

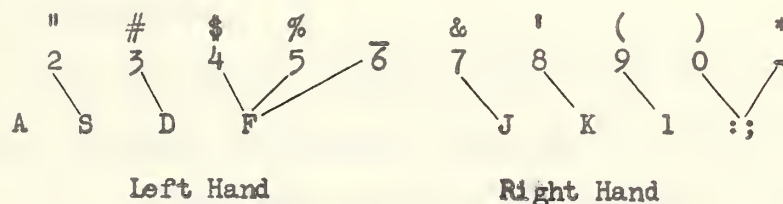
Textbook: Riemer, Edwin and Liebling, Louis, Tabulation, Elementary and Advanced, Pitman Publishing Corporation, New York, 1946, pp. iii-19.

The Pupil's Study Guide.-- During the next three weeks, you will be learning to type well-spaced columnar arrangements of words, figures, or descriptive matter. All required work is marked with an asterick (*). Unless indicated, the directions in the text hold.

Daily Warm-up Practice.-- Select one exercise each day. You will have one minute in which to type it as many times as possible. (Bell will ring at one minute.) The number of lines completed will be given credit. Use full sheets. Set the marginal stops at 10 and 70 for pica type; 15 and 75 for Elite type. Double space. Start slowly and gain speed gradually. Use quick strokes and correct fingers. Throw the carriage rapidly.

1. a;sldkfjghfjdksla;sldkfjghfjdksla;sldkfjghfjdksla;
2. 2-304958675849302-304958675849302-304958675849302-
3. aA1 bB2 cC3 fF4 jJ7 kK8 fF5 lL9 ;:0 fF6
4. 2" 3# 4\$ 5% #3 666 (use backspacer) 7&7 88's (9)

CORRECT FINGERING



Daily Location and Security Drills.-- Upon bell, continue on same sheet with the daily location and security drills, below. Select one each day. Write each line accurately at least three times. Type at a rate slower than your best speed. Strike each key with a sharp, sure stroke. Thumb the space bar rapidly.

1. aqqa swws deed frrf fttf juuj jyyj kiik lool ;pp;
2. azza sxxs dcd d fvvf fbbf jnnj jmmj k,,k l..l ;//;

(Continued on next page.)

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3. jujnj7j kik,k8k lol.19l ;p;/;0; frfvf4f dedcd3d awxsx2s aqaza
4. Right-hand figures: 1 7 8 9 0 11 17 18 19 70 71 77 78 79
80 87 88 89 90 91 98 99 100
5. Left-hand figures : 2 3 4 5 6 22 23 24 25 26 32 34 35 36
42 43 44 45 46 52 53 54 55 56 62 63 64 65
66
6. Both hands : 12 13 14 15 16 20 21 27 28 29 30 31 37
38 39 40 41 47 48 49 50 51 57 58 59 60
61 67 68 69 72 73 74 75 76 83 84 85 86
92 93 94 95 96

Assignment Sequence.--

Topic #1.-- Vertical and Horizontal Placement of Main Headings

1. Class Consideration

Think of all the printed forms you have filled out to date and then ask yourself, why study tabulation? (Read information on pages 1 and 2 of text.) When the printed form is not available, ask yourself, how should a tabulation appear? (Refer to page 18, herein.) What are the parts of a tabulation? What is the purpose of each part? (Refer to page 19, herein.) Each of these parts will be studied individually. What is the topic for today?

2. Group Activity

Complete exercise *1, page 6, together. Insert a half sheet with the left edge at 0. Move the marginal stops to extreme opposite ends. Single space. You are now ready to follow the working plan, (continued on page 20)

1. The first part of the report deals with the general situation of the country and the position of the various groups of the population.

2. The second part of the report deals with the economic situation of the country and the position of the various groups of the population.

3. The third part of the report deals with the social situation of the country and the position of the various groups of the population.

4. The fourth part of the report deals with the cultural situation of the country and the position of the various groups of the population.

5. The fifth part of the report deals with the political situation of the country and the position of the various groups of the population.

6. The sixth part of the report deals with the international situation of the country and the position of the various groups of the population.

7. The seventh part of the report deals with the future of the country and the position of the various groups of the population.

8. The eighth part of the report deals with the conclusion of the report and the position of the various groups of the population.

9. The ninth part of the report deals with the appendix of the report and the position of the various groups of the population.

10. The tenth part of the report deals with the bibliography of the report and the position of the various groups of the population.

11. The eleventh part of the report deals with the index of the report and the position of the various groups of the population.

12. The twelfth part of the report deals with the conclusion of the report and the position of the various groups of the population.

13. The thirteenth part of the report deals with the appendix of the report and the position of the various groups of the population.

14. The fourteenth part of the report deals with the bibliography of the report and the position of the various groups of the population.

15. The fifteenth part of the report deals with the index of the report and the position of the various groups of the population.

THE PLAN

Vertical Placement:

Total number of lines and interlines available:

66 lines full sheet

33 lines half sheet

(Interlines)

	<u>MAIN TITLE</u>		
One	SUBTITLE		
Two			
	C o m p o u n d H e a d i n g		
One			
	<u>Column Heading</u>		<u>Column Heading</u>
One			
	(Column)		(Column)
One			(____Exact Center)
	"		"
One			"
	"		"
One		(Intercolumn)	"
	"		"
One			"
	"		"
One			"
	"		"

(Midpoint)

43 pica type
51 Elite type

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A table is composed of one or more of the following parts:

- | <u>Part</u> | <u>Purpose</u> |
|----------------------|---|
| a. Main headings | |
| (1) Main title: | General title given to the subject-matter of the tabulation. |
| (2) Subtitle : | Secondary title which supplements the main title, or which is descriptive of a portion of the tabulation which follows. |
| b. Columnar headings | |
| (1) Compound heading | : Two or more column headings grouped together under one heading. |
| (2) Column heading | : Title of the subject matter of an individual column. |
| c. Tabulation proper | |
| (1) Column | : Content part, or tabulation proper. |
| (2) Inter-column | : The space between columns. |
| (3) Inter-lines | : The line space between typed lines. |

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7. *General* (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000)

8. *General* (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000)

9. *General* (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000)

10. *General* (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000)

11. *General* (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000)

12. *General* (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000)

below, (rather than the one given in the text).

Vertical Centering of Main Headings

Step 1. Count downward the number of lines and interlines to be allowed for the heading, as follows:

Principle: If the main heading is followed by a subheading, leave one interline.

<u>Example</u>	:	Revised Edition	(typed)	1	
			(interline)	2	
		of	(typed)	3	
			(interline)	4	
		Typewriting	(typed)	5	(total)

Step 2. Subtract this total from the total lines available on the sheet (33 for half sheet).

Example : 5 minus 33 equals 28 lines left over

Step 3. Divide the remainder by 2.

Principle: Disregard odd lines (if any).

Example : 28 divided by 2 equals 14 lines. This figure represents the top margin.

Step 4. Space down from the top of the page approximately 14 lines. In exact centering you space down exactly 15 lines. In optical centering which we will use, the bottom margin is somewhat wider than the top one.

Before completing exercise 1, we must find the horizontal center of the main heading. (Use the one given below rather than the one in the text.)

Horizontal Centering of Main Headings

Step 1. Move the carriage so that the print indicator reads midpoint on the front scale (43, pica type; 51, Elite).

Step 2. Backspace "Revised Edition." Spell out the letters as you backspace--one letter when you press down and one letter when you release, thus:

Principle: Disregard fractions (if any).

<u>Example</u> :	R	Down	E	Down
	e	Up	d	Up
	v	Down	i	Down
	i	Up	t	Up
	s	Down	i	Down
	e	Up	o	Up
	d	Down	n	<u>Disregard fractions</u>
	(space)	Up		

Step 3. Begin typing "Revised Edition" at the point at which the backspacing is completed.

Step 4. Leave one interline and type "of." Be sure to center each line in the heading. Leave another interline and type "Typewriting."

3. Optional Activity

If exercise *1, page 6, is completed, and checked by the teacher, proceed to exercise *2, page 6, in the same manner. When completed, and checked by the teacher, proceed to exercises *3, *4, and *5, page 6, and problems 3 and 4, page 19.

*Required of all pupils.

Topic #2.--- Emphasis and Display of Headings

1. Class Consideration

(Read individually.) The heading carries the reader to important parts of the tabulation. Compare page 18, "Emphasis and Display of Headings," with those shown, below. Which set do you prefer? Have you a reason for your preference?

Emphasis and Display of Headings

S P R E A D A N D U N D E R S C O R E D C A P S

*UNDERScoreD CAPS

S p r e a d C a p s a n d S m a l l L e t t e r s
U n d e r s c o r e d

*Underscored Caps and Small Letters

*Caps and Small Letters

(*Most common styles used.)

- Principles:
- (1) Any heading typed in all-capitals outranks those not typed in all capitals.
 - (2) Any heading typed in spread letters is more important than those in the same sized type.
 - (3) Equal emphasis is given to equal importance.
 - (4) Underscoring brings out special emphasis.
A continuous line is preferred to a broken one.
 - (5) White spaces emphasize the typed ones.

2. Class Activity

How would you display exercise *5, page 6? You have already centered this exercise. Retype it for proper emphasis and display. To make the address stand out, single space it.

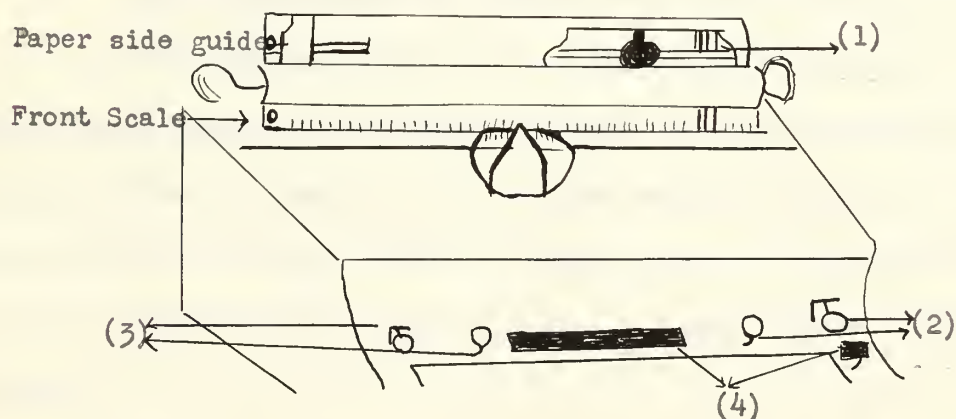
3. Optional Activity

If exercise *5, page 6 is completed, and checked by the teacher, proceed to exercises *6, *7, 8, and 9, page 7. Each exercise must be checked by the teacher before proceeding to the next.

Topic #3.—Operating the Tabulator System (Jump-stop)

1. Class Consideration

(Read together) Read the four paragraphs appearing under "The Tabulator System," page 4. Locate the parts of the tabulator system and the use of each, below:



(1) Tabulator stops on the tabulator rack coincide with the strokes on the front scale.

(2) Tabulator set key, on the right, throws in stops to catch the foremost figure in each column.

(Continued on next page)

Handwritten text, mostly illegible due to fading. The text appears to be organized into several paragraphs, with some lines starting with capital letters. The ink is dark but very faded, making it difficult to discern specific words or sentences.



Handwritten text at the bottom of the page, continuing from the top section. It is also mostly illegible due to fading. The text is written in a similar cursive or semi-cursive style as the text above.

(3) Tabulator clear key, on the left, releases one or all stops.

(4) Tabulator bar (or key), in front or to the side, snaps the carriage to the desired stop.

2. Group Activity

Complete problem *1, page 10, together. Clear the tabulator rack. Move the marginal stops to extreme opposite ends (the right marginal stop is seldom used in tabulation). Space down 10 spaces from the top. Set left marginal stop at 33 on pica type and 41, Elite. Using both hands, move the carriage quickly to 47 on the front scale for pica type; 55, Elite. Throw in a stop at this point (to catch the second column). Throw the carriage back to left margin several times, in the following manner:

- (a) Depress the tabulator key or bar.
- (b) Hold the key or bar down until the carriage stops.
- (c) Release the key or bar and return the finger to position.

Snap the carriage back to the left margin. We are now ready to start typing problem *1, page 10. Always type across the sheet. Do not start typing until the signal "start" is given. Stop as soon as the signal "stop" is given. Type as many lines as you possible can in thirty seconds.

Complete problem *4, page 10, together. Use half sheet. Clear the tabulator rack. Move the marginal stops to extreme opposite ends. Space down 10 spaces from the top. Set left marginal stop at 26 on pica type and 34, Elite. This time throw in two tab stops -- at 41 and 56 (pica) and 49 and 64 (Elite) to catch both the second and

third columns. Tabulate across the sheet several times to get the feel of the third column. Snap the carriage back to left margin. We are now ready to start typing across three columns. "Start" and "stop" will be used. Type as many lines as you possible can in thirty seconds.

We will repeat problem 4, page 10, using a ruler as a guide. The difficulty of keeping one's place when copying columns causes many errors. The ruler is moved down after every line of columns is typed. As you tabulate with the right hand, move the ruler down to the line of writing with the left hand. (This will be demonstrated by the teacher.)

3. Optional Activity

Retype problems *1 and *4, page 10, making two readable carbon copies of each.

Topic #4.-- Vertical and Horizontal Centering of Two Columns.

1. Class Consideration

(Read together) Columns, intercolumns, and interlines, make up the tabulation proper. The width of the column and intercolumn determine the width of the table. The typed lines and interlines make up the length of the table. (Refer to page 18 of Study Guide)

2. Group Activity

Complete problem *2, page 10, together. This problem consists of two columns, the tabulation proper. Before centering the columns vertically, there is a principle to be learned.

Principle: Tabulation proper is single or double spaced. Count the typed and interlines needed, and proceed just as you did for the vertical centering of headings. For horizontal centering, the backspacer may be used, but another method is applied herein.

Follow the working plan below (rather than the one in the text) for horizontal centering of columns.

Horizontal Centering of Columns

Step 1. Pick out the longest item in each column and place a guiding check mark (X) by it--one that can be easily erased.

Step 2. Choose an arbitrary intercolumn width from the chart, below:

Minimum spaces allowed . . .	2 spaces
For medium width columns . .	5 or 6 spaces
For wide columns	7 or 8 spaces
Keep small columns further out from the center . .	9 or 10 spaces

Step 3. Add the stroke count of the longest items. Jot it down on scratch paper.

Example: Braunschweig (12) Brunswick (21)

Step 4. Add the intercolumn spaces. Jot it down under the stroke count and total the two figures.

<u>Example:</u> Longest items	21
Intercolumn spaces	<u>6</u>
Total	27

Step 5. Divide the total by 2. Subtract this figure from midpoint.

Example: Total 27 divided by 2 equals 13 (Disregard fractions)

13 from (midpoint) gives you the left
marginal stop

THE STATE OF NEW YORK, in SENATE,

January 1, 1891.

REPORT

OF THE

COMMISSIONERS OF THE LAND OFFICE,

IN

RESPONSE TO A RESOLUTION PASSED BY THE SENATE,

APRIL 1, 1889.

ALBANY:

JOHN B. LANE, COMMISSIONER OF THE LAND OFFICE,

AND

JOHN B. LANE, COMMISSIONER OF THE LAND OFFICE,

AND

JOHN B. LANE, COMMISSIONER OF THE LAND OFFICE,

ALBANY:

JOHN B. LANE, COMMISSIONER OF THE LAND OFFICE,

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JOHN B. LANE, COMMISSIONER OF THE LAND OFFICE,

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ALBANY:

JOHN B. LANE, COMMISSIONER OF THE LAND OFFICE,

AND

JOHN B. LANE, COMMISSIONER OF THE LAND OFFICE,

ALBANY:

The next step is to set the tabulator stops. Following is the procedure.

Setting the Tabulator Stops

Step 1. Set the left marginal stop.

Step 2. From the left margin space forward through the longest item in the first column "Braunschweig" plus the inter-column space "6 spaces allowed"—throw in a tab stop.

Step 3. Snap carriage back to left margin and start typing across the columns.

3. Optional Activity

If problem *2, page 10, is completed and checked by the teacher, proceed to problems *6 and 7, page 11.

Principle: If the main heading is followed by a subheading, leave one interline; otherwise leave two interlines.

Topic #5.— Vertical and Horizontal Centering of Three Columns.

1. Class Consideration

(Demonstration by volunteers) How would you center three columns, vertically? Horizontally?

2. Optional Activity

Complete problems *4, *5, *8, and 9, page 11, in the usual manner.

Topic #6.— Centering the Columnar Headings

1. Class Consideration

(To be read together) The column heading is the title of the subject-matter of an individual column—a part of the column.

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Therefore, (a) whenever the column heading is the longest item in the column, it determines the width of the column. The column is centered under it. (b) Whenever the column heading is shorter than the longest item in the column, it is centered above the column. Determine whichever the case may be for exercises 1, 2, 3, and 4, page 14.

2. Group Activity

Complete exercise *3, page 14, together. Center the columns horizontally and vertically as you have done before. SET YOUR TABS FOR the longest item of each column.

Principle: Leave one interline between a column heading and its column.

Before starting to type, follow the working plan herein (rather than the one in the text).

Centering Columnar Headings

(a) Columnar heading is longest item in column.

Step 1. Start typing "Shorthand" even with the left margin. Tabulate to "Typewriting" and type it. Tabulate to "English" and type it. Return carriage to left margin (leave one interline).

Step 2. To center the column under the column heading, add the stroke count of the column heading. Jot it down on scratch paper. Add the stroke count of longest item in column and subtract it from stroke count of column heading. Divide the difference by 2.

the Commission of the European Communities, which
has been established by the Council of Ministers of the
Community, and which is now working in the field of
economic and social policy, and in the field of
education, science and culture, and in the field of
transport and communication.

The Commission is now working in the field of
economic and social policy, and in the field of
education, science and culture, and in the field of
transport and communication.

The Commission is now working in the field of
economic and social policy, and in the field of
education, science and culture, and in the field of
transport and communication.

The Commission is now working in the field of
economic and social policy, and in the field of
education, science and culture, and in the field of
transport and communication.

Example: Shorthand - 9 stroke count

$$\begin{array}{r} 1,642 \quad - 5 \quad " \quad " \\ 2 \quad (\overline{4} \quad (2 \end{array}$$

Allow two spaces. Start typing on the third space. Follow the same procedure for "Typewriting" and "English."

Step 3. After you have the columns centered and typed, clear the tabulator rack. Set a tab at the beginning of each column.

(In order to understand Step 3, we will type the figures in the columns three times each. Typing across the page.)

Complete exercise *1, page 14, together. Center the columns vertically and horizontally as you have done before. SET YOUR TABS FOR the longest item of each column. Before starting to type, follow the working plan, below:

(b) Columnar heading is shorter than the longest item in the column. Follow Step 2 under (a), page 28, guide sheet.

3. Optional Activity

Complete exercises *2 and 4, page 14.

Topic #7.-- Vertical and Horizontal Placement of Table.

1. Class Consideration

Review "The Plan," page 18, together. (Read together) Applying the plan is not enough. A tabulation should not be considered finished until it has been carefully checked. When corrections are necessary, be sure to make them in all copies and check them carefully. The ideal

method of proofreading tabulation is for one person to read aloud the original copy while the typist checks the typed copy. The following method of reading numbers aloud is recommended for proofreading, for reading the copy, and for typing numbers.

Proofreading Tabulation

Numbers	Diction
16	Sixteen
165	One sixty-five
1645	Sixteen forty-five
1,645	One six forty-five
16,645	Sixteen six forty-five
165,345	One sixty-five three forty-five
1,165,345	One one sixty-five three forty-five

2. Group Activity

Prepare for machine dictation. Insert a full sheet. Throw in tab stops at 25 and 45 for pica; 30 and 50, Elite. Double space. Leave an inch margin at the top. Type each figure twice, once in each column. Type the figures as they sound. Throw the carriage rapidly. (Proofreading diction will be used for dictation.)

3. Optional Activity

Before beginning the problem, read the directions in the text and the principles attached herein.

Complete problem*1, page 15.

Principle: There is a tendency to omit the dollar sign in tables unless it actually adds to the clearness of the material. If the

dollar sign is used, align it with the longest number in each column; repeated at the top, after every break, and total figure of each column; do not space between dollar sign and longest number.

Complete problem *2, page 15.

Principle: Always use commas in numbers to indicate thousands.

Complete problem 3, page 16.

Principle: The width of the intercolumn depends upon the width of the columns, as well as upon the number of columns which the tabulation is to contain. Keep smaller columns further out from the center.

Complete problem 4, page 16.

Complete problem *5, page 17. Make two carbon copies.

Principle: If any heading is too long for one line, or column, divide it into two or more parts, making the breaks come where there is a division of thought. Center each part, generally single-spaced.

Topic #8.-- Achievement test on the entire unit.

TABULATION
FINAL ACHIEVEMENT TEST

Introduction.-- There are two parts to this tabulation test. Your performance on this test is measured (Part I) in speed of production on straight copy and (Part II) artistic placement of a table and accuracy of locating and correcting your errors. Do you have the following materials? To be sure, check each item listed: 1 typewriter, 2 full sheets of $8\frac{1}{2}$ - by 11-inch paper, 1 ruler, 1 erasure shield, 1 eraser, and pencil and paper for figuring.

Do not start until the signal "start" is given. Stop immediately upon the signal "stop." Make this your best performance!

Part I - Timed Writing

Directions.-- This is a timed writing for five minutes. Set the marginal stops at 10 and 70 for pica; 15 and 75, Elite. Indent 5. Double space. THROW YOUR CARRIAGE AT THE END OF EACH LINE.

Part II - Placement of a Table

Directions.-- This is to be timed for ten minutes. You are to center the table vertically and horizontally. Give proper emphasis to headings. Arrange the data in the columns according to the principles of tabulation. Correct all corrective errors.

Part I - Timed Writing

Please accept our thanks for the order you	42
placed with our representative. It will have our	91
careful attention. Our Credit Department is at	138
present checking your account; and we shall be able,	190
we are sure, to make shipments to you on our regular	242
credit terms. If you are in <u>immediate</u> need of the	301
goods, wire us. We will then issue instructions to	352
ship the goods as soon as possible. Thank you once	403
more for your order. Thank you, too, for your re-	453
mittance of \$40 received today. We are returning	502
this remittance to you because it is incorrect. We	553
refer you to our letter of February 20.	592
 You will be very much pleased with the new	634
models we are showing this month. Please come in	683
at any time, either to make a purchase or to in-	731
spect our new materials and styles. We shall be	779
glad to show you what we have and assist you in	826
selecting a winter suit that will please you.	871

Part II - Placement of a Table

Credit Remittance

Months	Days	Amount
January	31	\$487.00
February	28	\$ 1,615.60
March	31	1,642
April	30	1973
May	31	1,965
June	30	\$175.00
July	31	\$150.00
August	31	3,900
September	30	1,900
October	31	2,600
November	31	4000.00
December	31	300.00

Table 1. Summary of data

Variable	Unit	Value
Age	Years	25
Gender	Male/Female	10/10
Weight	kg	70
Height	m	1.75
BMI	kg/m ²	22.2
Heart rate	beats/min	72
Blood pressure	mmHg	120/80
Glucose	mmol/L	5.0
Cholesterol	mmol/L	5.2
Triglycerides	mmol/L	1.5
HDL	mmol/L	1.3
LDL	mmol/L	3.3
Urea	mmol/L	5.5
Creatinine	mmol/L	0.8
Uric acid	mmol/L	0.4
Calcium	mmol/L	2.2
Phosphorus	mmol/L	1.2
Magnesium	mmol/L	0.8
Sodium	mmol/L	140
Potassium	mmol/L	4.0
Iron	mmol/L	0.05
Zinc	mmol/L	0.005
Copper	mmol/L	0.001
Manganese	mmol/L	0.0005
Selenium	mmol/L	0.0001
Cadmium	mmol/L	0.00001
Lead	mmol/L	0.000001
Mercury	mmol/L	0.0000001
Chlorine	mmol/L	100
Bromine	mmol/L	0.1
Iodine	mmol/L	0.0001
Fluorine	mmol/L	0.00001
Hydrogen	mmol/L	10
Oxygen	mmol/L	100
Nitrogen	mmol/L	10
Carbon	mmol/L	10
Sulfur	mmol/L	10
Phosphorus	mmol/L	10
Potassium	mmol/L	10
Sodium	mmol/L	10
Calcium	mmol/L	10
Magnesium	mmol/L	10
Iron	mmol/L	10
Zinc	mmol/L	10
Copper	mmol/L	10
Manganese	mmol/L	10
Selenium	mmol/L	10
Cadmium	mmol/L	10
Lead	mmol/L	10
Mercury	mmol/L	10
Chlorine	mmol/L	10
Bromine	mmol/L	10
Iodine	mmol/L	10
Fluorine	mmol/L	10
Hydrogen	mmol/L	10
Oxygen	mmol/L	10
Nitrogen	mmol/L	10
Carbon	mmol/L	10
Sulfur	mmol/L	10

BIBLIOGRAPHY

Subject Matter Textbooks

Blanchard, Clyde I., and Smith, Harold H., Typing for Business.
New York: The Gregg Publishing Company, 1946.

One-Year Course

Two-Year Course

Typing for Business and Personal Use, One-Year Course

Lessenberry, D. D., 20th Century Typewriting, Fourth Edition.
Cincinnati: South-Western Publishing Company, 1942.

Smith, Harold H., Typewriting Technique. New York: The Gregg
Publishing Company, 1936.

Sorelle, Rupert P., Smith, Harold H., Foster, William R., and
Blanchard, Clyde I., Gregg Typing, Third Edition, Complete
Course. New York: The Gregg Publishing Company, 1941.

Webb, R. F., Webb's Simplified Typing, Complete Course. New York:
Prentice-Hall, Inc., 1938.

Supplementary Textbooks

Bargen, Bernhard, Tabulation Technique. New York: The Gregg Publish-
ing Company, 1934.

Riemer, Edwin, and Liebling, Louis, Tabulation, Elementary and
Advanced. New York: Pitman Publishing Corporation, 1946.

Wanous, S. J., Statistical Typing, With Tabulation Problems.
Cincinnati: South-Western Publishing Company, 1945.

Bulletins

The University of the State of New York, The State Education Depart-
ment, Division of Vocational Education, Bureau of Business
Education. Albany:

Bulletin No. 55-A (September 1), 1945.

Bulletin No. 55-B (October 15), 1945.

Bulletin No. 60 (December 10), 1945.

Bulletin No. 55-C (January 15), 1946.

BIBLIOGRAPHY

Magazine Articles

Lanchard, Clyde I., "Unarranged Tabulations Are Out," The Business Education World. New York: The Gregg Publishing Company, Vol. XXVII (December 1946), pp. 202-203.

Atler, Elizabeth V., "Statistical Typewriting--A New Job Classification," United Business Education Forum. Washington, D.C.: The Association, Vol. II No. 8 (May 1948), pp. 25-28.

Lloyd, Alan, The Gregg Writer. New York: The Gregg Publishing Company. Vol. XLIX.

"Tabulation Without Arithmetic," (December 1946) pp. 180-181.

"The Ups and Downs of Tabulation Placement," (January 1947) pp. 233-235.

"Headings and Headlines," (February 1947), pp. 289-292.

"To Make Your Headings Fit," (April 1947), pp. 399-402.

1. The first part of the document is a list of names and addresses of the members of the committee. The names are written in a cursive hand, and the addresses are written in a more formal, printed hand. The list is organized into two columns, with names on the left and addresses on the right. The names are: John A. Smith, James B. Jones, William C. Brown, and Thomas D. White. The addresses are: 123 Main Street, New York, N.Y.; 456 Elm Street, Boston, Mass.; 789 Oak Street, Philadelphia, Pa.; and 101 Pine Street, San Francisco, Calif.

2. The second part of the document is a letter from the committee to the members of the committee. The letter is written in a cursive hand and is dated January 1, 1900. The letter is addressed to the members of the committee and is signed by the chairman of the committee, John A. Smith. The letter discusses the work of the committee and the progress of the project. The letter is written in a friendly and informal tone, and it is signed with a cursive signature.

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MAR 5		DEC 8 1959
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MAY 18 1949		AUG 8 1961
JUN 9 1950		AUG 6 - 1962
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